

INTRODUCTION TO CSS

CSS ASSOCIATES STYLE RULES WITH HTML ELEMENTS

```
p {font-family: Arial;}
```

Selector

Declaration

CSS PROPERTIES AFFECT HOW ELEMENTS ARE DISPLAYED

```
h1 {color: yellow;}
```

⋮

Property

⋮

Value

CSS PROPERTIES AFFECT HOW ELEMENTS ARE DISPLAYED

```
h1 {  
  color: yellow;  
  font-family: Arial;  
  font-size: 18px;  
}
```

Properties

Values

USING EXTERNAL CSS

```
<!DOCTYPE html>
<html>
  <head>
    <title>Using External CSS</title>
    <link href="css/styles.css" rel="stylesheet">
  </head>
  <body>
    <h1>Potatoes</h1>
    <p>There are dozens of...</p>
  </body>
</html>
```

CODE

USING EXTERNAL CSS

```
<!DOCTYPE html>

<html>

  <head>

    <title>Using External CSS</title>

    <link href="css/styles.css" rel="stylesheet">

  </head>

  <body>

    <h1>Potatoes</h1>

    <p>There are dozens of...</p>

  </body>

</html>
```

CODE

WHY USE EXTERNAL STYLE SHEETS?

Same CSS can be used for every page

No need to duplicate style code on each webpage

Changes to CSS automatically apply to the entire website

Faster loading times for subsequent pages because
browsers cache style sheets

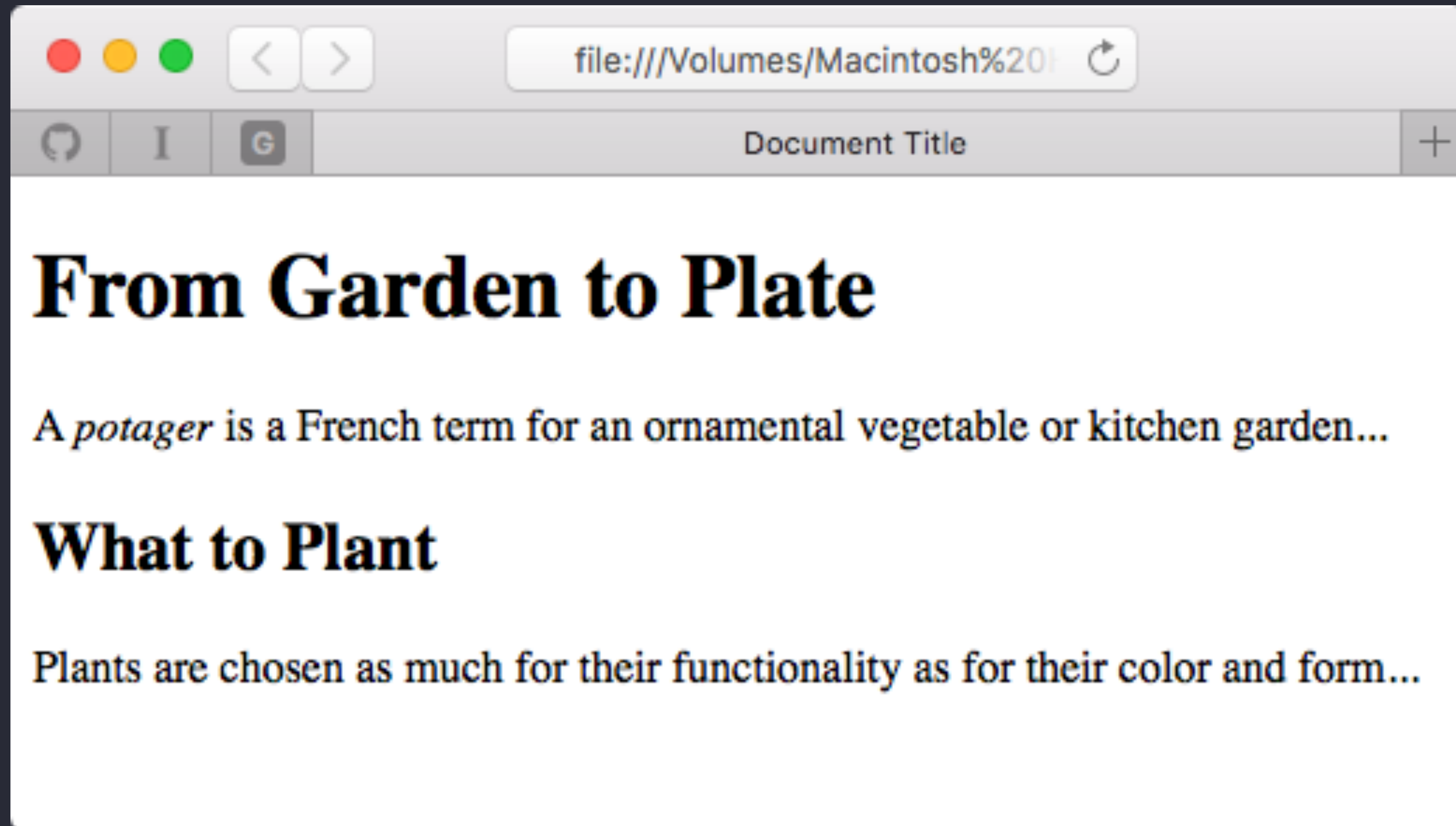
Easier for teams to create new pages using same styles

USING CSS: HTML

```
<body>
  <h1>From Garden to Plate</h1>
  <p>A <em>potager</em> is a French term for an
ornamental vegetable or kitchen garden...</p>
  <h2>What to Plant</h2>
  <p>Plants are chosen as much for their
functionality as for their color and form...</p>
</body>
```

CODE

USING CSS: HTML PREVIEW



USING CSS: CSS

CODE

```
body {  
    font-family: Arial, Verdana, sans-serif;  
}
```

```
h1, h2 {  
    color: #ee3e80;  
}
```

```
p {  
    color: #665544;  
}
```

USING CSS: CSS

```
/* Change the font */  
body {  
    font-family: Arial, Verdana, sans-serif;  
}  
  
h1, h2 {  
    color: #ee3e80;  
}  
  
p {  
    color: #665544;  
}
```

CODE

USING CSS: CSS

CODE

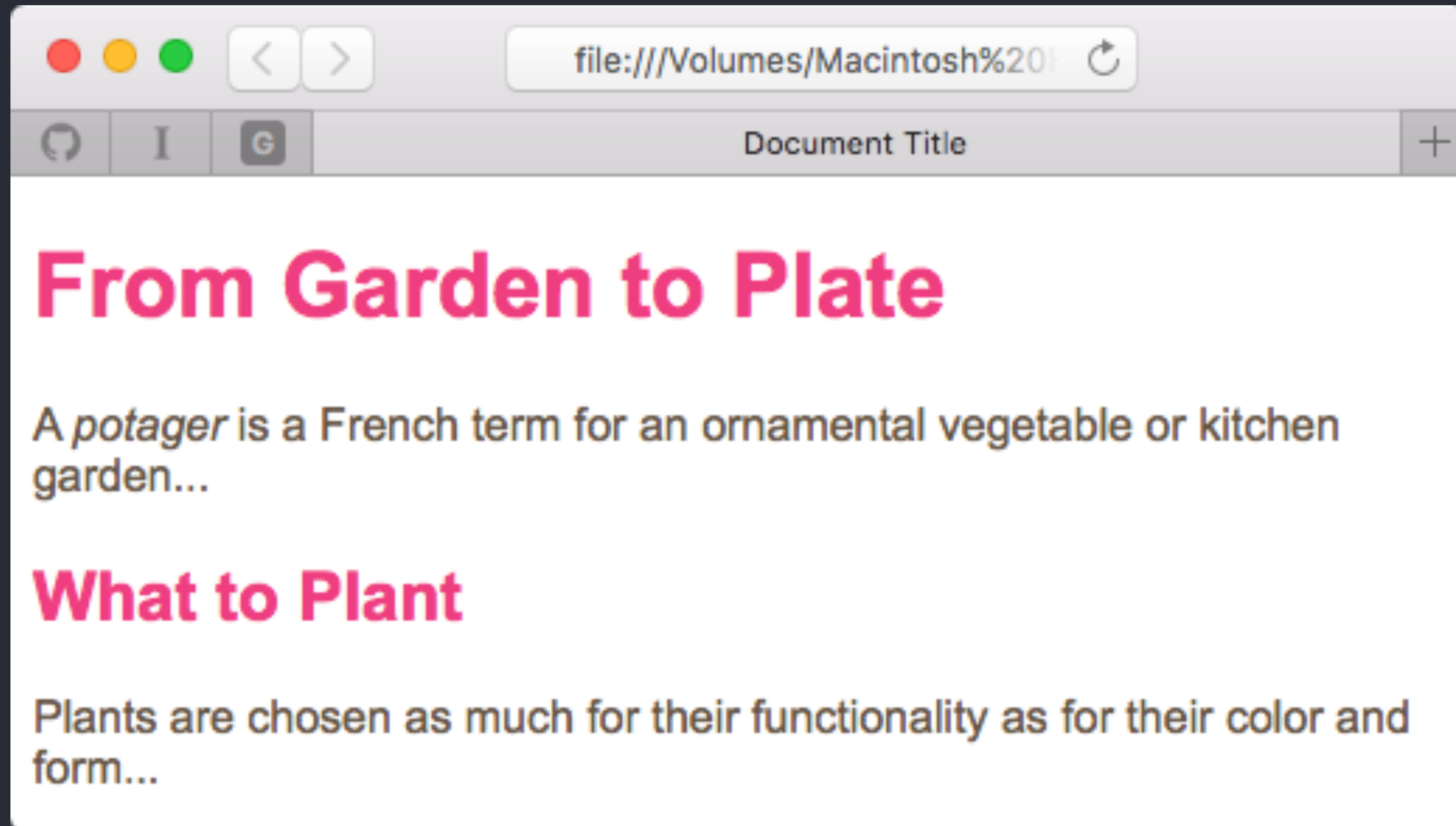
```
body {  
    font-family: Arial, Verdana, sans-serif;  
}  
  
/* Change the text color of the headings */  
h1, h2 {  
    color: #ee3e80;  
}  
  
p {  
    color: #665544;  
}
```

USING CSS: CSS

CODE

```
body {  
    font-family: Arial, Verdana, sans-serif;  
}  
  
h1, h2 {  
    color: #ee3e80;  
}  
  
/* Change the text color of the paragraphs */  
p {  
    color: #665544;  
}
```

USING CSS: CSS PREVIEW



SELECTORS

CSS SELECTORS

Allow you to **select** various parts of your HTML markup for **styling**

CSS SELECTORS

Universal

```
* {}
```

Type

```
h1, h2, h3 {}
```

Class

```
.note {}  
p.note {}
```

Descendent

```
p a {}
```

ID

```
#introduction {}
```

CASCADE & INHERITANCE

CASCADE

Selectors **further down** a style sheet **override** the same selectors **higher** in the style sheet

CASCADE

```
h1 {  
  color: green;  
}
```

CODE

```
h1 {  
  color: red;  
}
```

CASCADE

```
h1 {  
  color: green;  
}
```

CODE

```
h1 {  
  color: red; /* All h1 will be red, overriding green set above */  
}
```

INHERITANCE

Some properties **inherit** styles from **parent elements**

INHERITANCE

```
body {  
  font-family: Arial;  
  color: #333;  
  padding: 10px;  
}
```

```
h1 { ... }
```

```
.page { ... }
```

CODE

INHERITANCE

```
body {  
    font-family: Arial; /* Inherited by children */  
    color: #333; /* Inherited by children */  
    padding: 10px;  
}
```

```
h1 { ... }
```

```
.page { ... }
```

CODE

INHERITANCE

```
body {  
  font-family: Arial;  
  color: #333;  
  padding: 10px;  
}
```

```
h1 {  
  color: #acd123; /* Override color set on parent (body) */  
}
```

```
.page { ... }
```

CODE

INHERITANCE

```
body {  
    font-family: Arial;  
    color: #333;  
    padding: 10px; /* Not inherited by children */  
}  
  
h1 {  
    color: #acd123; /* Override color set on parent (body) */  
}  
  
.page {  
    padding: inherit; /* Force inheritance from parent (body) */  
}
```

CODE

SPECIFICITY

*"It doesn't matter how well-considered your source order is; how well you're utilizing the cascade; what naming conventions you use; **specificity can undo everything.**"*

- Harry Roberts, CSS Wizardry

SPECIFICITY

Selectors that are **more specific** will **override** selectors that are **less specific**

(regardless of placement in stylesheet)

CALCULATING SPECIFICITY

A weight is applied to a CSS selector

Weight is determined by the number of **each selector types** in the selector:

0. Type selectors (e.g. `h1`)
1. Class selectors (e.g. `.example`)
2. ID selectors (e.g. `#example`)

<https://specificity.keegan.st>

CALCULATING SPECIFICITY

CODE

h1 { ... }
0 IDs 0 classes 1 element = 1

body header h1 { ... }
0 IDs 0 classes 3 elements = 3

.primary { ... }
0 IDs 1 class 0 elements = 10

h1.primary { ... }
0 IDs 1 class 1 element = 11

.hero h1.primary { ... }
0 IDs 2 classes 1 element = 21

#primary-header { ... }
1 ID 0 classes 0 elements = 100

SPECIFICITY PITFALLS

Styles quickly become dependent on each other

```
#content table { ... }
```

Overriding styles becomes increasingly difficult

One overly-specific selector can wreak havoc

CSS TYPOGRAPHY

TYPEFACES

```
body {
```

```
  font-family: Georgia, Times, serif;
```

```
}
```

```
h1, h2 {
```

```
  font-family: Arial, Verdana, sans-serif;
```

```
}
```

```
.credits {
```

```
  font-family: "Courier New", Courier, monospace;
```

```
}
```

CODE

Briards

by Ivy Duckett

The [briard](#), or berger de brie, is a large breed of dog traditionally used as a herder and guardian of sheep.

Breed History

The briard, which is believed to have originated in France, has been bred for centuries to herd and to protect sheep. The breed was used by the French Army as sentries, messengers and to search for wounded soldiers because of its fine sense of hearing. Briards were used in the First World War almost to the point of extinction. Currently the population of briards is slowly recovering. Charlemagne, Napoleon, Thomas Jefferson and Lafayette all owned briards.

TYPE SIZES

```
html {  
  font-family: Georgia, Times, serif;  
  font-size: 12px;  
}
```

CODE

```
h1, h2 {  
  font-size: 2rem; /* 2 × 12px (html font size) = 24px */  
}
```

```
.credits {  
  font-size: 130%;  
}
```

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LEADING

```
p {  
  line-height: 1.4;  
}
```

CODE

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BOLD

```
.credits {  
  font-weight: bold;  
}
```

CODE

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ITALIC

```
.credits {  
  font-style: italic;  
}
```

CODE

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UPPER AND LOWERCASE

```
h1 {  
  text-transform: uppercase;  
}
```

```
h2 {  
  text-transform: lowercase;  
}
```

```
.credits {  
  text-transform: capitalize;  
}
```

CODE

UPPER AND LOWERCASE

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UNDERLINE AND STRIKETHROUGH

```
.credits {  
  text-decoration: underline;  
}
```

CODE

```
a {  
  text-decoration: none; /* Remove default underline from all links */  
}
```

UNDERLINE AND STRIKETHROUGH

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LETTER AND WORD SPACING

```
h1, h2 {  
  text-transform: uppercase;  
  letter-spacing: 0.2em;  
}
```

```
.credits {  
  font-weight: bold;  
  word-spacing: 1em;  
}
```

CODE

LETTER AND WORD SPACING

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ALIGNMENT

```
h1 {  
    text-align: left;  
}  
  
p {  
    text-align: justify;  
}  
  
.credits {  
    text-align: right;  
}
```

CODE

ALIGNMENT

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CSS COLOR

CMYK AND RGB

CMYK: subtractive color model used in print

Cyan, Magenta, Yellow, Black

RGB: additive color model used for screens

Red, Green, Blue

Red, green and blue light are added together to reproduce colors

SPECIFYING COLORS

RGB VALUES

`rgb(102, 205, 170)`



HEX CODES

`#66cdaa`



COLOR NAMES

`mediumAquaMarine`



FOREGROUND COLORS

```
h1 {  
  color: DarkCyan;  
}
```

```
h2 {  
  color: #ee4e80;  
}
```

```
p {  
  color: rgb(100, 100, 90);  
}
```

CODE

FOREGROUND COLORS

Marine Biology

The Composition of Seawater

Almost anything can be found in seawater. This includes dissolved materials from Earth's crust as well as materials released from organisms. The most important components of seawater that influence life forms are salinity, temperature, dissolved gases (mostly oxygen and carbon dioxide), nutrients, and pH. These elements vary in their composition as well as in their influence on marine life.

BACKGROUND COLORS

```
body {  
  background-color: rgb(200, 200, 200);  
}
```

CODE

```
h1 {  
  color: #ffffff;  
  background-color: DarkCyan;  
}
```

```
h2 {  
  color: #ffffff;  
  background-color: #ee3e80;  
}
```

BACKGROUND COLORS

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Almost anything can be found in seawater. This includes dissolved materials from Earth's crust as well as materials released from organisms. The most important components of seawater that influence life forms are salinity, temperature, dissolved gases (mostly oxygen and carbon dioxide), nutrients, and pH. These elements vary in their composition as well as in their influence on marine life.

CSS VERSIONS AND BROWSER QUIRKS

There are several different version of CSS

Not all browsers support all properties and features

Especially older browsers like < IE 10

<http://caniuse.com>

Some browsers implement features differently

Some browsers have “bugs” and/or “quirks”

It is important to test your code in multiple browsers

<https://developer.mozilla.org/en-US/docs/Web/CSS/Reference>

QUESTIONS?